

Abstract

[00044] An integrated, compact, self contained surveillance unit including: a housing having a front end and a back end; a sensor section attached to the front end of the housing; mechanism for determining the position of the unit; a communications system; a computer, and image output attached to the back end of the housing connected to the computer. The computer is connected to the sensor section, the position determination mechanisms, the communication system and the image output. All are supported by the housing. The sensor is selected from the group including visible sensors, UV sensors, short wavelength infrared sensors and long wavelength infrared sensors. The sensor section also includes an uncooled focal plane array. The position determination mechanisms include GPS, GLONASS, an accelerometer and a compass. The communication system , which is bi-directional, includes a multi-mode patch antenna and a SDR. The computer includes digital signal processing, field programmable gate array and memory (both volatile and non-volatile). The surveillance unit also includes a temperature sensor connected to the computer. The image output is, preferably, a heads up display which is detachable from the housing. Finally, the surveillance unit includes mechanisms for inputting and manipulating data, including a touchpad.